



# **Loose Tube Gel-Free Dielectric Armored Double Jacket Slim Cable / PBT**

FOSPC-XXX-X-DJADYD-FT003-EX / 2-432 Fibers

# **Description**

Waveoptics Loose Tube Gel-Free Dielectric Armored Double Jacket Slim Cable is an all-dielectric cable designed for aerial (lashed) and duct installations. Reduced weight design and smaller diameter allows the usage of smaller ducts.

Loose tubes are made of PBT which provide great mechanical properties under a wide range of conditions such as crush test and impact test. Gel-free water blocking technology allows a cleaner and quicker installation as well as a cost-friendly cable preparation.

Special rodent deterrent HDPE outer jacket with additives makes a resistant and durable cable, providing superior protection against UV radiation, fungus, abrasion and other environmental factors, with added hardness. The inner jacket is made of MDPE for an easy

The SZ-stranded method for loose tubes and four ripcords ensure a quick and easy mid-span access.

Dielectric central strength member requires no bonding or grounding. Double jacket design and dielectric armoring made of glass yarns that offers improved mechanical properties, and acts as a small rodent deterrent, while maintaining flexibility.



LT DRY DA DJ SLIM CABLE 288F G652D DFT003 S EX

#### Quality

Waveoptics is a ISO-9001: 2015 certified company.

We meet or exceed the following international standards:

- Telcordia GR-20: Generic requirements for optical fiber and optical fiber cable.
- IEC 60794: Basic requirements for optical fiber and cable elements.
- ANSI/ICEA S-87-640: Standard for optical fiber outside plant communications cable.

Each Waveoptics cable meets the highest quality standards in the industry and contains a compliance certificate in which the performed tests in our quality laboratory are physically attached.

# **Applications:**



Outdoor





Lashed

#### **Protections:**







www.waveoptics.net

info@waveoptics.net



# TECHNICAL DATA SHEET OUTDOOR CABLE

# **Dimensions and Properties**

#### FOSPC-XXX-X-DJADYD-FT003-EX / 2-432 fibers

MDPE Black Inner Jacket

Optical Fibers

Ripcord x4

Dielectric Central Strength Member

Water Blocking Yarn Inside Loose Tube

Water Blocking Yarn Ripcord x4

Gel-Free PP Loose Tubes

Glass Yarn

Design					
Fiber per tube	2 - 12				
Fiber color code / loose tube color code	1     2     3     4     5     6     7     8     9     10     11     12       13     14     15     16     17     18     19     20     21     22     23     24       25     26     27     28     29     30     31     32     33     34     35     36				
Dielectric central strength member	FRP				
Peripheral strength member	Glass yarn				
Outer jacket material / thickness	Rodent Deterrent HDPE / 1.5 mm (0.06 in)				
Inner jacket material / thickness MDPE / 0.8 mm (0.03 in)					
Loose tube material / diameter PBT / 1.9 mm (0.07 in)					
Drum length	10,000 ft, 15,000 ft & 20,000 ft (±5%)				
Temperature range					
Operation	-40°C to 70°C (-40°F to 158°F)				
Installation	-30°C to 70°C (-22°F to 158°F)				
Storage / transport	-40°C to 70°C (-40°F to 158°F)				
Mechanical properties					
Crush resistance (short-term / long-term)	3,000 N/100mm / 1,500 N/100mm				
Minimum bend radius (operation / installation) 10 x OD / 20 x OD					

Note: Waveoptics recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Fiber count	Loose tube / fillers	Cable weight (kg/km) (lb/kft) (±10%)	Tensile strength (N) (lbf) long-term / short-term	Nominal outer diameter (mm) (in) (±5%)	Dielectric central strength member diameter (mm) (in) (Without PE / With PE)
2 - 12	1/5	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
24	2/4	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
36	3/3	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
48	4/2	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
60	5/1	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
72	6/0	95 (64)	890 / 2,700 (200/607)	11.9 (0.47)	2 (0.08)
96	8/0	119 (80)	890 / 2,700 (200/607)	13.1 (0.52)	3.2 (0.13)
144	12/0	159 (107)	890 / 2,700 (200/607)	15.3 (0.6)	3 / 5.5 (0.12 / 0.22)
192	16/2	165 (111)	890 / 2,700 (200/607)	16.2 (0.64)	2 (0.08)
216	18/0	165 (111)	890 / 2,700 (200/607)	16.2 (0.64)	2 (0.08)
288	24/0	205 (138)	890 / 2,700 (200/607)	17.9 (0.7)	2.6 / 3.7 (0.1 / 0.15)
432	36/0	254 (107)	890 / 2,700 (200/607)	20.5 (0.81)	2 (0.08)



# **TECHNICAL DATA SHEET OUTDOOR CABLE**

#### **Printed Information on Outer Jacket**

FOSPC-XXX-X-DJADYD-FT003-EX / 2-432 fibers

#### =/MONTH//YEAR/ WAVEOPTICS= =DJADYD= =/FIBER TYPE/= =/FIBER COUNT/= =/FEET\*/ FT= =/LOT #/=

- Printed in white and resistant to physical tests on marking.

  Marking interval: every 2 feet + 1% or 1 meter + 1%.

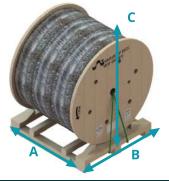
  The marking can be changed according to customer requirements.

  \*The standard marking interval is every 2 feet, in case the marking requirement is in meters, a notification on the purchase order would be necessary.

# **Drum Dimensions and Pallet Packaging Information**







Drum length (ft) (m) (±5%)	Fiber count	A (mm) (in) (±5%)	B (mm) (in) (±5%)	Drum and pallet total weight (kg) (lb) (±10%)	Total packaging (±5%)			
					A (mm) (in)	B (mm) (in)	C (mm) (in)	
	2 - 72	1,300 (51)	1,000 (39)	419 (924)	1,030 (41)	1,300 (51)	1,478 (58)	
	96	1,350 (53)	1,080 (43)	519 (1,144)	1,270 (50)	1,350 (53)	1,528 (60)	
10,000 (3,048)	144	1,450 (57)	1,130 (44)	676 (1,490)	1,270 (50)	1,450 (57)	1,628 (64)	
	192 - 216	1,500 (59)	1,176 (46)	719 (1,585)	1,270 (50)	1,500 (59)	1,678 (66)	
	288	1,600 (63)	1,226 (48)	906 (1,997)	1,270 (50)	1,600 (63)	1,778 (70)	
	432	1,850 (73)	1,225 (48)	1,125 (2,481)	1,270 (50)	1,850 (73)	2,028 (80)	
15,000 (4,572)	2 - 72	1,000 (39)	1,100 (43)	600 (1,324)	1,270 (50)	1,150 (45)	1,178 (46)	
	96	1,000 (39)	1,125 (44)	750 (1,654)	1,270 (50)	1,150 (45)	1,178 (46)	
	144	1,650 (65)	1,226 (48)	1,023 (2,225)	1,270 (50)	1,650 (65)	1,828 (72)	
	192 - 216	1,700 (67)	1,175 (46)	1,080 (2,382)	1,270 (50)	1,700 (67)	1,878 (74)	
	288	1,900 (75)	1,376 (54)	1,307 (2,881)	1,470 (58)	1,900 (75)	2,078 (82)	
	432	1,900 (75)	1,472 (58)	1,489 (3,283)	1,470 (58)	1,900 (75)	2,078 (82)	
20,000 (6,096)	2 - 72	1,600 (63)	1,226 (48)	860 (1,896)	1,270 (50)	1,600 (63)	1,778 (70)	
	96	1,650 (65)	1,226 (48)	1,031 (2,274)	1,270 (50)	1,650 (65)	1,828 (72)	
	144	1,850 (73)	1,225 (48)	1,320 (2,911)	1,270 (50)	1,850 (73)	2,028 (80)	
	192 - 216	1,900 (75)	1,446 (57)	1,404 (3,096)	1,470 (58)	1,900 (75)	2,078 (82)	
	288	1,900 (75)	1,472 (58)	1,628 (3,590)	1,470 (58)	1,900 (75)	2,078 (82)	

Note 1: please contact your sales agent for higher fiber counts or different drum lengths available.
\*Note 2: all documentation included in each drum of cable is in english, if a different language is needed, please contact your sales agent.

- Drum handling instructions.

4.- End cable marking.

5.- Both ends include end caps to protect against humidity.



# **TECHNICAL DATA SHEET OUTDOOR CABLE**

# **Transmission Performance by Fiber Type**

#### FOSPC-XXX-X-DJADYD-FT003-EX / 2-432 fibers

Fiber type	Single Mode				Multi Mode				
Waveoptics fiber type	G652.D	G657.A1	G657.A2	G655.C	OM1	OM2	OM3	OM4	
Waveoptics fiber code	F	Т	Е	G	В	L	М	Р	
OFS® fiber type	G652.D	AllWave® FLEX	AllWave® FLEX+	TrueWave <sup>®</sup> LA	62.5 um Laser Optimized	50 um Graded Index	LaserWave® FLEX 300	LaserWave® FLEX 550	
OFS® fiber code	1	2	3	7	5	8	9	0	
Wavelength (nm)	1310/1550 15			1550/1625		850/1300			
Max. attn. (dB/km) (1)	0.35/0.25	0.35/0.25	0.35/0.25	0.25/0.27	3.4/1	3/1			
Min. bandwidth (MHz*km) (2)	-				200/500	750/500	1500/500	3500/500	
1-Gigabit ethernet distance (m) (3)	-				300	750	> 550	> 550	
10-Gigabit ethernet distance (m) (4)	-				-	150	300	400	
40/100-Gigabit ethernet distance (m) (5)	-				-	-	100/70	150/100	
Cable marking specifications	G652.D	G657.A1	G657.A2	G655.C	OM1	OM2	OM3	OM4	

(1) Maximum attenuation after cabling process.

- (4) 10-Gb/s at 850 nm transmissions based on IEEE 802.3ae test protocol. (5) 40/100-Gb/s at 850 nm transmissions based on IEEE P802.3ba test protocol.
- (2) OFL (overfilled launch) bandwidth measurement. (3) 1-Gb/s at 850 nm transmissions based on IEEE 802.3z test protocol.
- \*For more information about the optical fibers, consult the corresponding data sheets.

# **Part Number Configuration**

#### **Fiber count**

002 - 2 fibers

004 - 4 fibers

006 - 6 fibers 008 - 8 fibers

012 - 12 fibers

024 - 24 fibers

036 - 36 fibers

048 - 48 fibers

060 - 60 fibers

072 - 72 fibers

096 - 96 fibers

144 - 144 fibers

288 - 288 fibers

432 - 432 fibers

F - SM G652.D

T - SM G657.A1

E - SM G657.A2

G - SM G655.C

B - MM OM1

L - MM OM2 TRUE BEND

**Waveoptics fiber type** 

M - MM OM3 TRUE BEND

P - MM OM4 TRUE BEND

#### **OFS®** fiber type

1 - SM G652.D

FOSPC-XXX-X-DJADYD-FT003-EX

2 - AllWave® FLEX

3 - AllWave® FLEX+

7 - TrueWave® LA

5 - 62.5 um Laser Optimized

8 - 50 um Graded Index

9 - LaserWave® FLEX 300

0 - LaserWave® FLEX 550

### Optical cable compliance

EX - Waveoptics slim design

Note: please contact your Waveoptics distributor if you need any additional compliance or if you have questions about the part number configuration.